



DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

[Safety Advisory 2016-02]

Identification and Mitigation of Hazards Through Job Safety Briefings and Hazard Recognition Strategies

AGENCY: Federal Railroad Administration (FRA), U.S. Department of Transportation (DOT).

ACTION: Notice of Safety Advisory.

SUMMARY: FRA is issuing Safety Advisory 2016-02 out of concern for the number of railroad and railroad contractor fatalities that occur when roadway workers perform certain activities that fall outside the scope of FRA's safety regulations, but within the purview of the U.S. Occupational Safety and Health Administration's (OSHA) regulations. FRA is issuing this Safety Advisory to remind railroads and railroad contractors, and their employees (including roadway workers) of the importance of identifying hazardous conditions at job locations, conducting thorough job safety briefings to discuss the hazardous conditions, and taking appropriate actions to mitigate those conditions. This Safety Advisory reminds railroads, railroad contractors, and their respective employees that OSHA's job safety regulations may apply to certain roadway worker activities and makes recommendations for hazard recognition strategies and challenge procedures that could improve roadway worker safety while roadway workers are engaged in activities subject to OSHA's regulations. FRA considers this Safety

Advisory responsive to the National Transportation Safety Board's (NTSB)

Recommendations R-14-33, R-14-35, and R-14-36.

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SUPPLEMENTARY INFORMATION:

On April 3, 2016, two National Railroad Passenger Corporation (Amtrak) employees were killed in Chester, Pennsylvania, when an Amtrak train struck a backhoe on that track. Although the NTSB has not concluded its investigation of this accident, FRA believes more robust protection of roadway workers¹ employed by railroads and railroad contractors who work on or near railroad track is necessary. Railroad safety is of the utmost importance to FRA, and FRA has taken several measures, some of which are discussed below, to better protect roadway workers.

On June 10, 2016, FRA published two final rules addressing roadway worker safety. One of the rules amends FRA's Roadway Worker Protection (RWP) regulations (49 CFR part 214, subpart C), while the second rule revises FRA's alcohol and drug regulations (49 CFR part 219).

The final rule, "Railroad Workplace Safety; Roadway Worker Protection Miscellaneous Revisions (RRR)" (RWP Final Rule), resolves miscellaneous interpretive issues, codifies certain FRA technical bulletins, adopts new requirements governing redundant signal protections and the movement of roadway maintenance machines over

¹ FRA regulations define a "roadway worker" as "any employee of a railroad, or of a contractor to a railroad, whose duties include inspection, construction, maintenance or repair of railroad track, bridges, roadway, signal and communication systems, roadway facilities or roadway maintenance machinery on or near track or with the potential of fouling a track, and flagmen and watchmen/lookouts." 49 CFR 214.7.

certain types of track, and amends certain qualification requirements for roadway workers. See 81 FR 37840, June 10, 2016. For example, the RWP Final Rule mandates job briefings for roadway workers include information on the accessibility of the roadway worker in charge. Second, it sets standards for how “occupancy” behind train authorities (when the authority for a work crew does not begin until the train has passed the area) can be used. Third, it requires annual training for any train, yard, and engine service individual acting as a roadway worker in charge. Finally, it requires railroads to annually train all roadway workers on their procedures for determining whether it is safe to cross track.

The final rule, “Control of Alcohol and Drug Use: Coverage of Maintenance of Way (MOW) Employees and Retrospective Regulatory Review-Based Amendments” (MOW Final Rule), broadens the scope of FRA’s alcohol and drug regulations to cover MOW employees.² See 81 FR 37894, June 10, 2016. The MOW Final Rule subjects all MOW employees to FRA’s drug and alcohol testing, including random testing, post-accident testing, reasonable suspicion testing, reasonable cause testing, pre-employment testing, return-to-duty testing, and follow-up testing. The MOW Final Rule also requires drug testing of railroad and MOW employees involved in certain highway-rail grade crossing accidents or incidents.

On March 17, 2016, FRA published Safety Advisory 2016-01 addressing the movement of roadway maintenance machines over highway-rail grade crossings. In Safety Advisory 2016-01, FRA emphasized the importance of compliance with railroad operating rules over highway-rail grade crossings and the need for railroad employees

² The MOW Final Rule defines the term “maintenance-of-way employee” or “MOW employee” as “a roadway worker, as defined in 49 CFR 214.7.”

and contractors operating those machines to maintain situational awareness. See 81 FR 14516, Mar. 17, 2016. Specifically, in Safety Advisory 2016-01 FRA recommends railroads and railroad contractors review, update, and follow rules and procedures governing the safe movement of roadway maintenance machines traversing highway-rail grade crossings.

As discussed above, FRA has taken a number of recent steps to better protect roadway workers when those roadway workers are engaged in activities subject to FRA's safety jurisdiction. When those employees are engaged in activities outside the scope of FRA's safety regulations, they may be required to comply with OSHA's regulations, such as 29 CFR part 1910 (Occupational Safety and Health Standards) and 29 CFR 1926 (Safety and Health Regulations for Construction). Specifically, railroads and railroad contractors may be required to implement policies and procedures mandated by OSHA relating to the working conditions for roadway workers.

Between January 1, 2000 and December 31, 2015, over 60 roadway worker fatalities occurred while the roadway workers performed work not covered by FRA's safety regulations. This leads FRA to believe railroads and railroad contractors, as well as their employees, may fail to recognize potential hazards outside of those directly governed by FRA's rail safety regulations and may fail to develop and implement appropriate risk mitigation actions.

During the NTSB's September 24, 2014, hearing regarding the 2013 MOW and signal employee fatalities, the NTSB reminded the rail industry that, in certain situations, OSHA's regulations apply to railroads and railroad contractors, including OSHA's requirements that employees: (1) conduct hazard assessments to identify and address

existing conditions that pose safety hazards; (2) conduct job safety briefings prior to every work activity; and (3) conduct additional job briefings if significant changes occur during the course of the work. See 29 CFR 1910.132(d), 1910.269(a)(3), 1910.269(c), 1926.952(b)-(d).³

Although FRA's safety regulations require on-track safety job briefings prior to an employee fouling track,⁴ through this Safety Advisory, FRA reminds railroads and railroad contractors and their respective employees that when their roadway workers are engaged in activities that fall outside the scope of FRA's safety regulations, those activities may be subject to OSHA's regulations. And, those OSHA regulations may require job safety briefings prior to beginning certain work activities, and additional job safety briefings if a new hazard is discovered during the work assignment. Job safety briefings, specific to the task or tasks to be performed, provide a mechanism to not only communicate identified risks to every member of the roadway work group, but to also ensure that the roadway work group agrees as to how the identified risks will be mitigated. The job safety briefing is a key component in preventing individual conditions, which can be harmless in isolation, from becoming a potentially dangerous situation.

³ Also on September 24, 2014, the NTSB issued a report titled Special Investigation Report on Railroad and Rail Transit Roadway Worker Protection, SIR-14/03. In that report, NTSB issued three Safety Recommendations to FRA that this Safety Advisory is responsive to, including Safety Recommendations R-14-33, R-14-35, and R-14-36. NTSB's Recommendation R-14-33 states FRA should revise the job briefing provisions of its Roadway Worker Protection regulations (49 CFR part 214) to include best practices found in OSHA's regulations. NTSB's Recommendation R-14-35 states FRA should work with OSHA to establish guidelines for when and where OSHA standards should be applied to railroads and railroad workers. NTSB's Recommendation R-14-36 states FRA should require initial and recurring training for roadway workers in hazard recognition and mitigation, including recognition and mitigation of the hazards of tasks performed by coworkers.

⁴ See e.g., 49 CFR 214.315(a) and (d) (addressing job safety briefings).

Railroads and railroad contractors should consider having a workable strategy for identifying safety hazards that exist in their work environments and for eliminating or addressing such safety hazards. Railroads and railroad contractors should therefore consider developing and implementing annual training for their roadway workers in various hazard recognition techniques. Whenever a hazard or risk is identified, a roadway worker should stop, look around, and analyze the situation for potential harm. Recognizing every situation for its potential danger may be challenging. Moreover, individual, isolated conditions may appear to be harmless. However, a combination of several seemingly harmless conditions can present a serious safety hazard.

Examples of contributing factors or actions roadway workers may face or engage in that may have been a factor in one or more roadway worker fatalities since 2000 while the roadway workers were performing work not covered by FRA regulations include, but are not limited to: ascending or descending; falling objects; electrocution; an unanticipated energy release; slips, trips and falls; hoisting or lowering an object; off-track equipment striking roadway workers; collisions between roadway maintenance machines and standing trains; highway vehicle collisions (vehicle to vehicle); highway vehicles striking roadway workers; and environmental-related hazards (swarming bees, mudslides, heat stroke, flash floods, etc.).

FRA and the railroad industry have witnessed success using the Good Faith Challenge Procedures found in FRA's regulations⁵ for situations when a roadway worker believes the on-track safety procedure being used is inadequate for the work being performed. In such a situation, the roadway worker may remain clear of the track until

⁵ See 49 CFR 214.311 (responsibility of employers to implement Good Faith Challenge Procedures).

the challenged safety issue is resolved without fear of retribution or retaliation. Many railroads have adopted Good Faith Challenge Procedures for any safety-related concern, not just those FRA regulates. FRA recommends all railroads and railroad contractors adopt appropriate Good Faith Challenge Procedures for any recognized hazard identified during job safety briefings or any hazard otherwise arising during the course of work activities roadway worker believes requires remediation, whether FRA, OSHA, or another Federal agency regulate the that hazard.

RECOMMENDATIONS: In light of the above discussion, and in an effort to improve job safety briefings, improve the identification and mitigation of potential safety hazards existing in the working environments of roadway workers, and reduce the number of injuries and fatalities occurring when roadway workers are engaged in activities outside the scope of FRA's safety regulations, FRA recommends railroads and railroad contractors:

1. Develop hazard-recognition strategies identifying and addressing existing conditions posing actual or potential safety hazards, emphasizing the contributing factors or actions involved in roadway worker-related fatalities occurring since 2000.
2. Provide annual training to roadway workers on the use of hazard-recognition strategies developed by the railroad or the railroad contractor.
3. Institute procedures for mandatory job safety briefings compliant with OSHA's regulations prior to initiating any roadway worker activity. Consistent with OSHA's regulations, roadway workers should use hazard-recognition procedures to identify potential hazards in their job briefings and then determine the

appropriate measures to mitigate the identified hazards. If an unforeseen situation develops during work performance, roadway workers should stop working and conduct a second job briefing to determine the appropriate means of mitigating the new hazard.

4. Develop and apply Good Faith Challenge Procedures for all roadway workers who, in good faith, believe a task is unsafe or an identified hazard has not been mitigated.

FRA encourages railroad and railroad contractor industry members to take actions consistent with the preceding recommendations and any other actions that may help ensure the safety of roadway workers. Although the primary purpose of this Safety Advisory is for railroads and railroad contractors to apply these recommendations to activities that fall outside the scope of FRA's safety regulations, FRA also encourages the industry to apply these recommendations to activities FRA's regulations govern.

FRA may modify this Safety Advisory, issue additional safety advisories, or take other appropriate actions necessary to ensure the safety of the Nation's railroads, including pursuing other corrective measures under its safety laws and regulations.

Issued in Washington, DC, on November 22, 2016.

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Director, Office of Safety Analysis.
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